

KPT-902-M

ECONOMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM



Klipsch®

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET



DESIGNED AND MADE IN THE USA USING DOMESTIC AND IMPORTED COMPONENTS

In 1946, Paul W Klipsch, genius & maverick, hand-built his first loudspeaker in a tin shed with the intention of bringing live music into his living room. Remember great sound? We do, too. Today, Klipsch's cinema series speaker enclosures are made in the USA, by proud craftsmen in Hope, Arkansas. Just like PWK intended.

AVAILABLE VERSIONS

KPT-902-M

Includes passive processor for Mono-amp operation

SYSTEM COMPONENTS

	KPT-902-M
HF	KPT-310-HF
LF	KPT-902-LF
NETWORK	KPT-902-N2

RECOMMENDED USE



UP TO
125 SEATS (approximately 1400 ft² or 130 m²)

PRODUCT OVERVIEW

The KPT-902 is an entry level 2-way mono-amp speaker system for medium size auditoriums where cost effectiveness is the primary objective. Designed for mono-amp operation, the single wire run minimizes amplifier setup and maintains economy. The highly sophisticated passive processors assure optimal performance between components. Utilizing the larger KPT-902-LF enclosure and new KPT-310-HF horn, the extended low frequency response and dynamic horn loaded midrange provide enough power for Klipsch's legendary sound in small to mid-sized cinemas

RECOMMENDED MINIMUM AMPLIFIER POWER

	KPT-902-M
AMP POWER RATING	600W into 4 ohms

SYSTEM SPECIFICATIONS

FREQUENCY RESPONSE ¹ (+/- 3 dB)	48 Hz - 20 kHz
FREQUENCY RANGE (-10 dB)	35 Hz - 20 kHz
SENSITIVITY ² 1W/1M	100.5 dB
POWER HANDLING ³	300W (36V)
POWER HANDLING (PEAK)	1200W
MAXIMUM SPL ⁴	125 dB
NOMINAL IMPEDANCE	4.5 ohm
HORIZONTAL COVERAGE	90° +/- 30° 400 Hz - 18 kHz
VERTICAL COVERAGE	60° +/- 30° 450 Hz - 20 kHz
DIRECTIVITY INDEX (DI)	8 dB
DIRECTIVITY FACTOR (Q)	6.3
HF DRIVERS	One K-70-G 1.75" compression driver on a K-603 Horn
LF DRIVERS	Two K-33-E Woofers
HEIGHT	55.5" (141.0cm)
WIDTH	27.25" (69.2cm)
DEPTH	17.75" (40.1cm)
WEIGHT	155 lbs. (70.3 kg)

¹ Frequency response behind a screen relative to X-curve and with active processing applied

² SPL at 1M, half-space anechoic with 2.83V input

³ AES standard, continuous pink noise, 6 dB peaks



⁴ Calculated at 1M half-space at power handling input

KPT-902-M

ECONOMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

	KPT-335-B		KPT-335-M																		
	HF/MF	LF	HF/MF/LF																		
SENSITIVITY		102 dB	102 dB																		
POWER HANDLING		400W (40V)	500W																		
POWER HANDLING (PEAK)		1600W	2000W																		
MAXIMUM SPL		125 dB	126 DB																		
MAXIMUM SPL (PEAK)		131 dB	132 dB																		
NOMINAL IMPEDANCE		8 ohm	8 ohm																		
	<div style="text-align: center;">  KPT-335-HF/MF </div> <table border="1"> <tr> <td>HIGHPASS CROSSOVER</td> <td colspan="2">880 Hz Linkwitz Riley 24 dB</td> </tr> <tr> <td>PEQ1</td> <td>8 kHz</td> <td>Q: 2 Gain: +2 dB</td> </tr> <tr> <td>PEQ2</td> <td>3 kHz</td> <td>Q: 4 Gain: +2 dB</td> </tr> <tr> <td>PEQ3</td> <td>2 kHz</td> <td>Q: 5 Gain: -2 dB</td> </tr> <tr> <td>HF DELAY</td> <td colspan="2">0 ms</td> </tr> <tr> <td>OUTPUT GAIN</td> <td colspan="2">+1 dB</td> </tr> </table>		HIGHPASS CROSSOVER	880 Hz Linkwitz Riley 24 dB		PEQ1	8 kHz	Q: 2 Gain: +2 dB	PEQ2	3 kHz	Q: 4 Gain: +2 dB	PEQ3	2 kHz	Q: 5 Gain: -2 dB	HF DELAY	0 ms		OUTPUT GAIN	+1 dB		ACTIVE PROCESSOR SETTINGS ARE NOT REQUIRED FOR MONO-AMP CONFIGURATION
HIGHPASS CROSSOVER	880 Hz Linkwitz Riley 24 dB																				
PEQ1	8 kHz	Q: 2 Gain: +2 dB																			
PEQ2	3 kHz	Q: 4 Gain: +2 dB																			
PEQ3	2 kHz	Q: 5 Gain: -2 dB																			
HF DELAY	0 ms																				
OUTPUT GAIN	+1 dB																				
	<div style="text-align: center;">  KPT-315-LF </div> <table border="1"> <tr> <td>LOWPASS CROSSOVER</td> <td colspan="2">980 Hz Linkwitz Riley 24 dB</td> </tr> <tr> <td>PEQ1</td> <td>540 Hz</td> <td>Q: 2.4 Gain: +3 dB</td> </tr> <tr> <td>PEQ2</td> <td>800 Hz</td> <td>Q: 2 Gain: +3 dB</td> </tr> <tr> <td>PEQ3</td> <td>900 Hz</td> <td>Q: 5.5 Gain: +3 dB</td> </tr> <tr> <td>LF DELAY</td> <td colspan="2">0.542 ms</td> </tr> <tr> <td>OUTPUT GAIN</td> <td colspan="2">0 dB</td> </tr> </table>		LOWPASS CROSSOVER	980 Hz Linkwitz Riley 24 dB		PEQ1	540 Hz	Q: 2.4 Gain: +3 dB	PEQ2	800 Hz	Q: 2 Gain: +3 dB	PEQ3	900 Hz	Q: 5.5 Gain: +3 dB	LF DELAY	0.542 ms		OUTPUT GAIN	0 dB		
LOWPASS CROSSOVER	980 Hz Linkwitz Riley 24 dB																				
PEQ1	540 Hz	Q: 2.4 Gain: +3 dB																			
PEQ2	800 Hz	Q: 2 Gain: +3 dB																			
PEQ3	900 Hz	Q: 5.5 Gain: +3 dB																			
LF DELAY	0.542 ms																				
OUTPUT GAIN	0 dB																				

RECOMMENDED ACTIVE PROCESSOR SETTINGS

Digital Signal Processing (DSP) equipment is required for the Bi-amp configuration of the KPT-335-B/M. Digital Signal Processing is not required for proper configuration of the mono-amp version, as the passive processor takes care of all the equalization/crossover requirements for the system.

The DSP parameters listed above are to establish crossover, gain, equalization and delay. They are recommended for the initial set-up evaluation and will yield the corresponding component specifications at the top of this page.

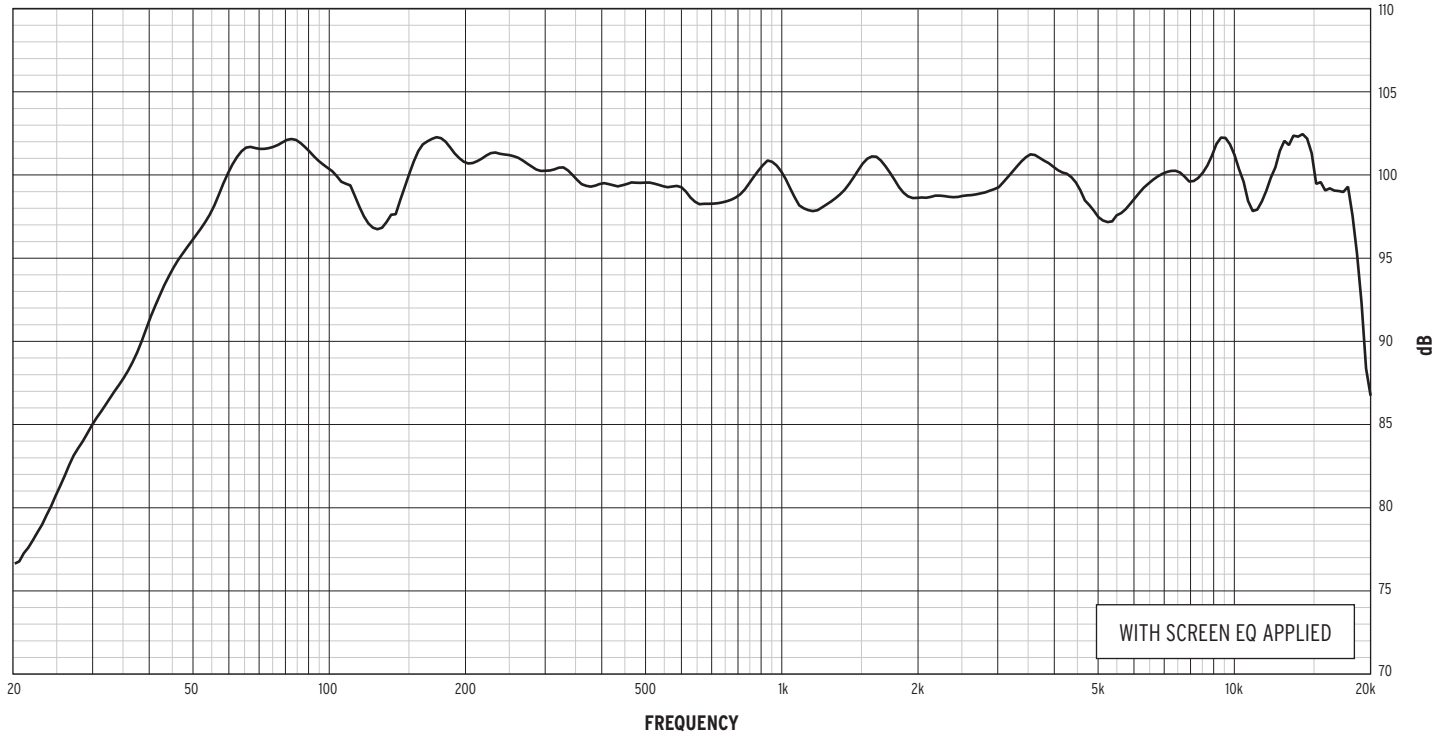
KPT-902-M

ECONOMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM

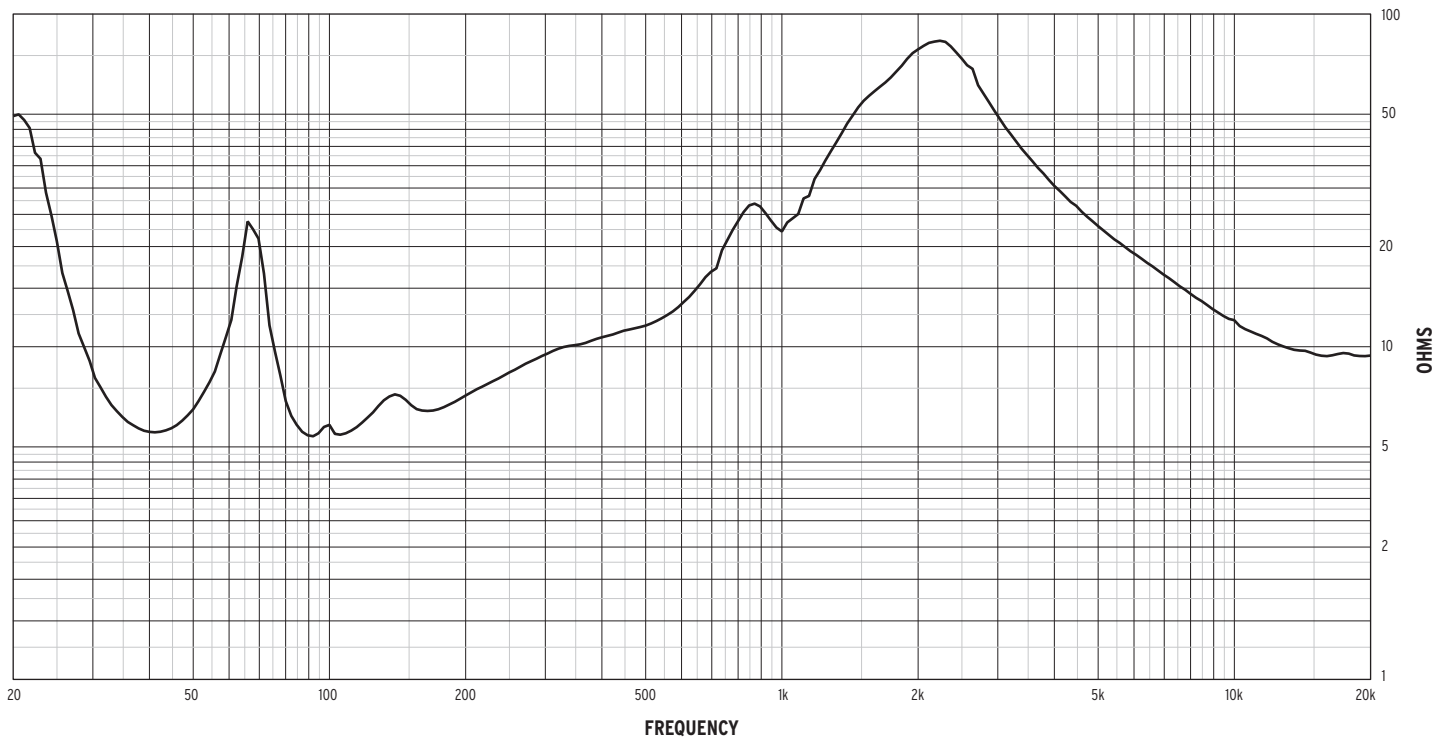


KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

FREQUENCY RESPONSE



IMPEDANCE



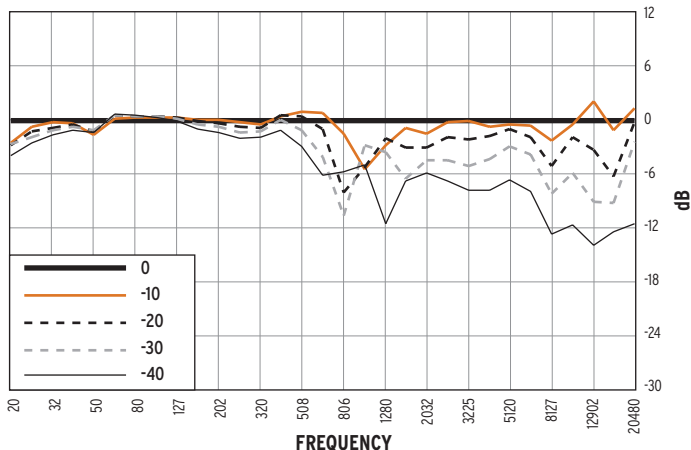
KPT-902-M

ECONOMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM

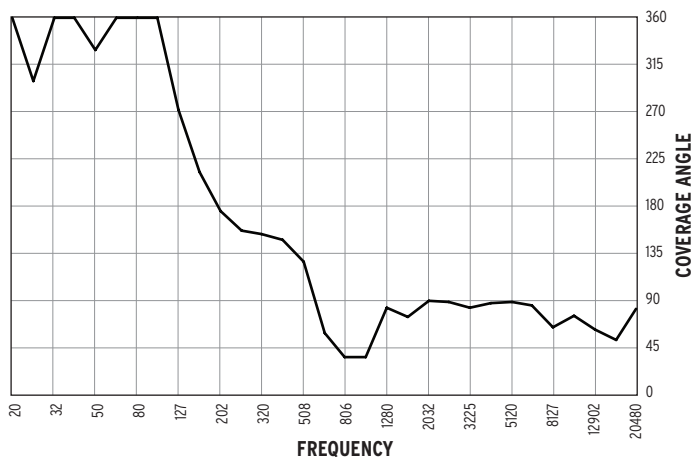


KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

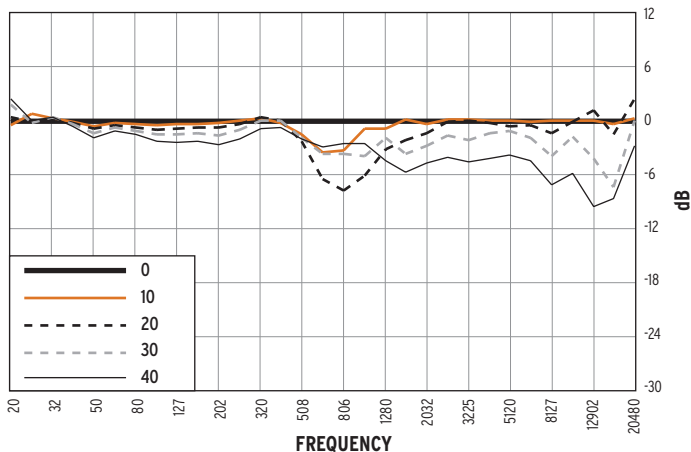
HORIZONTAL OFF AXIS TRANSFER FUNCTION LEFT



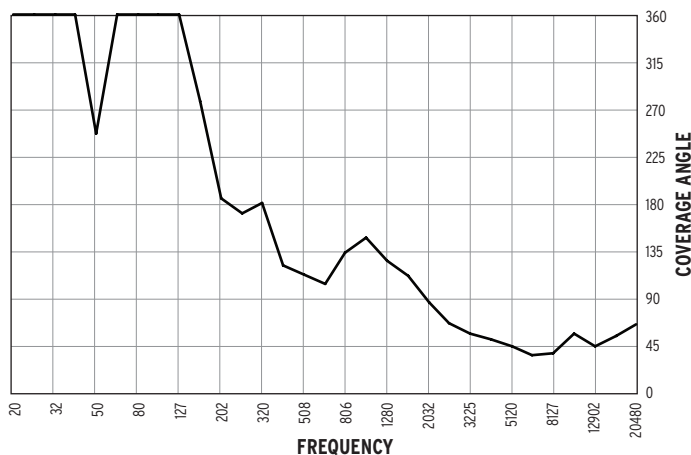
HORIZONTAL COVERAGE (-6dB)



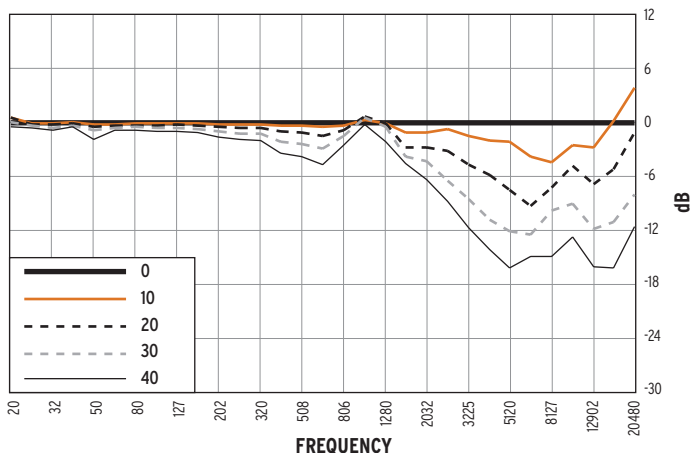
HORIZONTAL OFF AXIS TRANSFER FUNCTION RIGHT



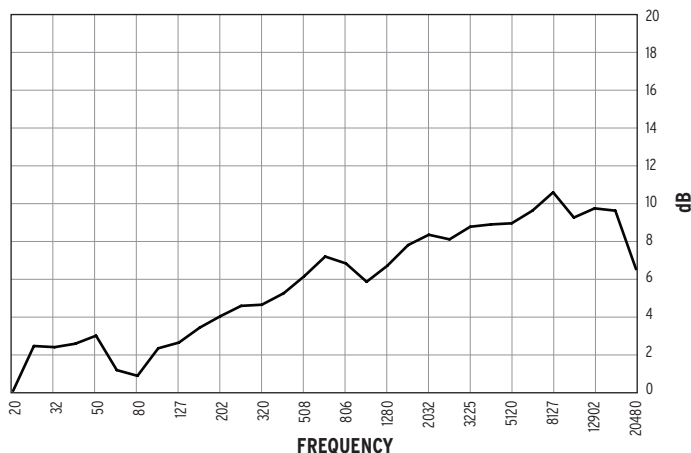
VERTICAL COVERAGE (-6dB)



VERTICAL OFF AXIS TRANSFER FUNCTION



DIRECTIVITY INDEX



KPT-902-M

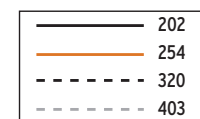
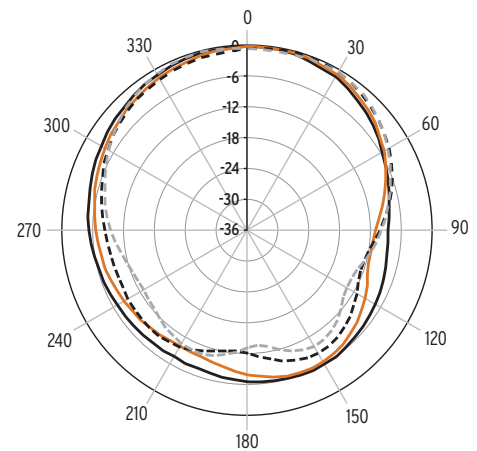
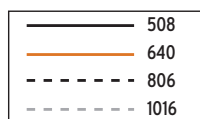
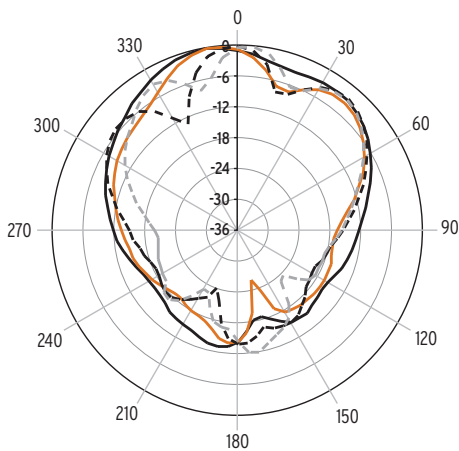
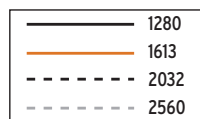
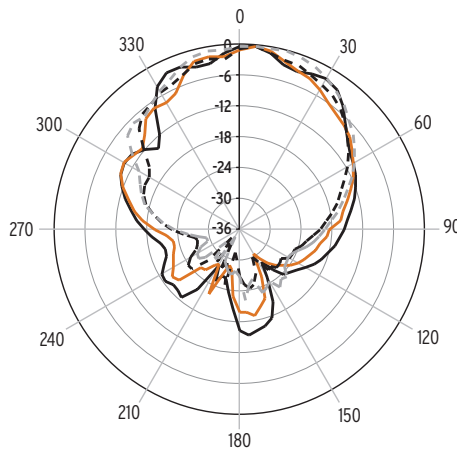
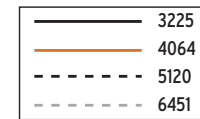
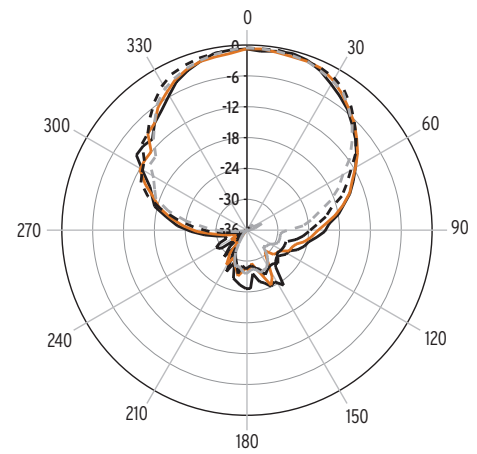
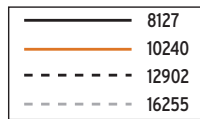
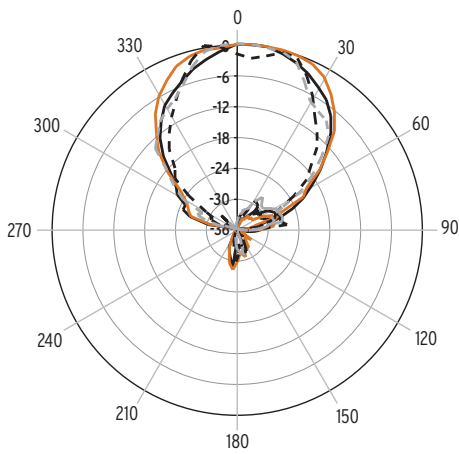
ECONOMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM



Klipsch®

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

HORIZONTAL 1/3 OCTAVE POLARS



KPT-902-M

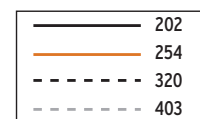
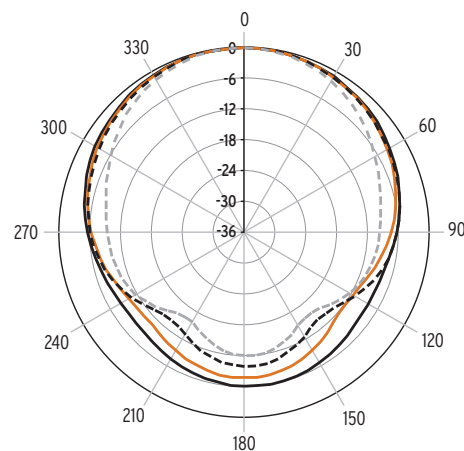
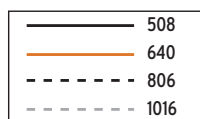
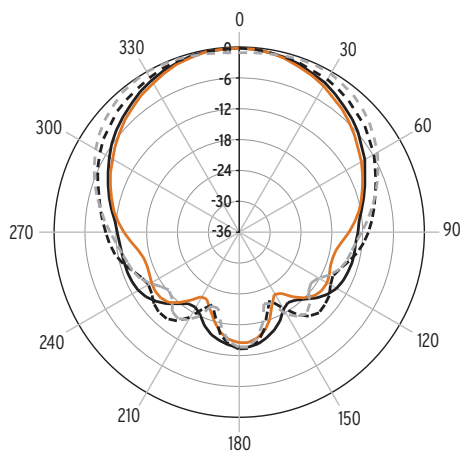
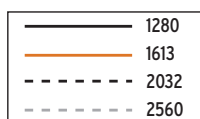
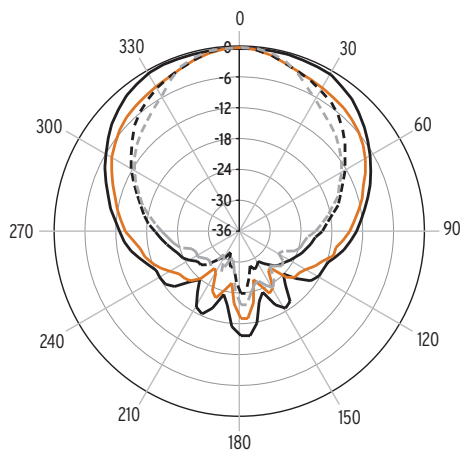
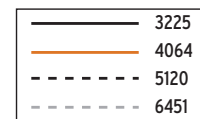
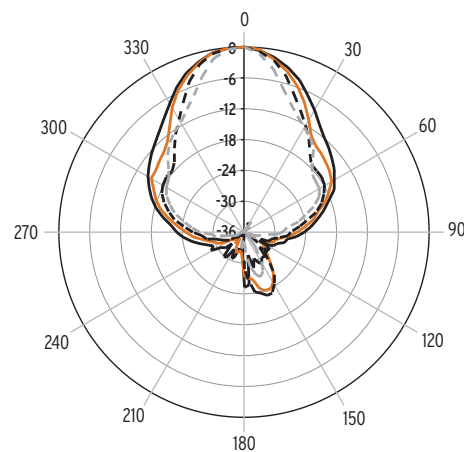
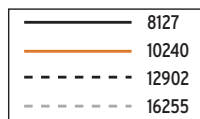
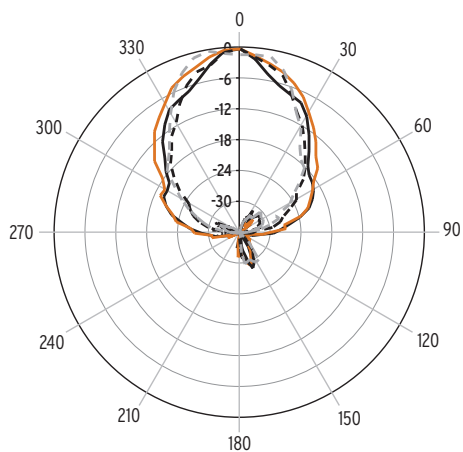
ECONOMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM



Klipsch

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

VERTICAL 1/3 OCTAVE POLARS



KPT-902-M

ECONMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

ARCHITECTURAL SPECIFICATIONS

The KI-398-RGL two-way professional cinema surround speaker system shall include an 15" (380 mm) K-48-ST low-frequency transducer utilizing a 3" (75 mm) voice coil, 104 ounce (2.95 kg) magnet and motor magnet assembly and a KDE-75-8P 3" (76.2 mm) titanium diaphragm high-frequency 60-ounce (1.70 kg) magnet compression driver mounted on a 90° X 50° injection molded modified Tractrix Horn. Signal shall be applied to the transducers via a full-range frequency-dividing network. The enclosure tuning shall be of a vented design.

Frequency response shall be 51 Hz to 18 kHz, +/- 3 dB, with the -10dBpoint at 38Hz, measured at three meters, half-space anechoic. The high-frequency dispersion angle shall be 90° X 50° nominal. Directivity shall be 8 dB. Sensitivity shall be 100dB SPL, measured at one meter, half-space anechoic, with a 2.83V input. Power handling shall be 600 watts (57 volts), to AES standards, continuous pink noise, 40 Hz to 10 kHz, 6 dB peaks. Calculated maximum continuous output at one meter shall be 126dB SPL. Nominal impedance shall be 8 ohms, with 5.5 ohms minimum at 90 Hz.

The internal passive crossover frequency shall be 750Hz with a slope of 24dB/octave on the low frequency and 24dB/octave on the high- frequency. Signal connections shall be made via a two point barrier strip.

The enclosure panels shall be CNC-fabricated using .75" (19mm) 7-ply natural hardwood plywood, assembled using rabbet and dado joinery. The motorboard baffle shall be 1" (2.54cm) molding grade MDF. Dimensions for the enclosure shall be 39" (99.1 cm) high by 16.0" (40.04 cm) deep by 19.8" (50.2cm) front width and 6.8" (17.2cm) rear width in a symmetrical trapezoidal shape, with both side panels angled at 22.5° Net weight shall be 78 lbs. (35.5kg).

Enclosure flying capability shall be provided via sixteen internal 3/8"-16 thread mounting points, 4 points per panel with additional compatibility with readily available commercial flying hardware.

The system shall be a Klipsch KI-398-RGL loudspeaker.

NEED HELP WITH YOUR PRO SYSTEM DESIGN?

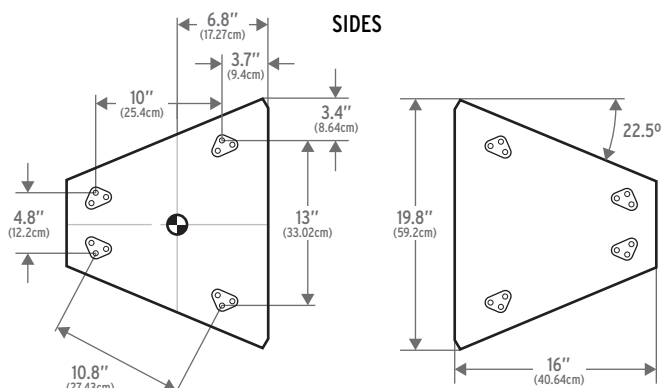
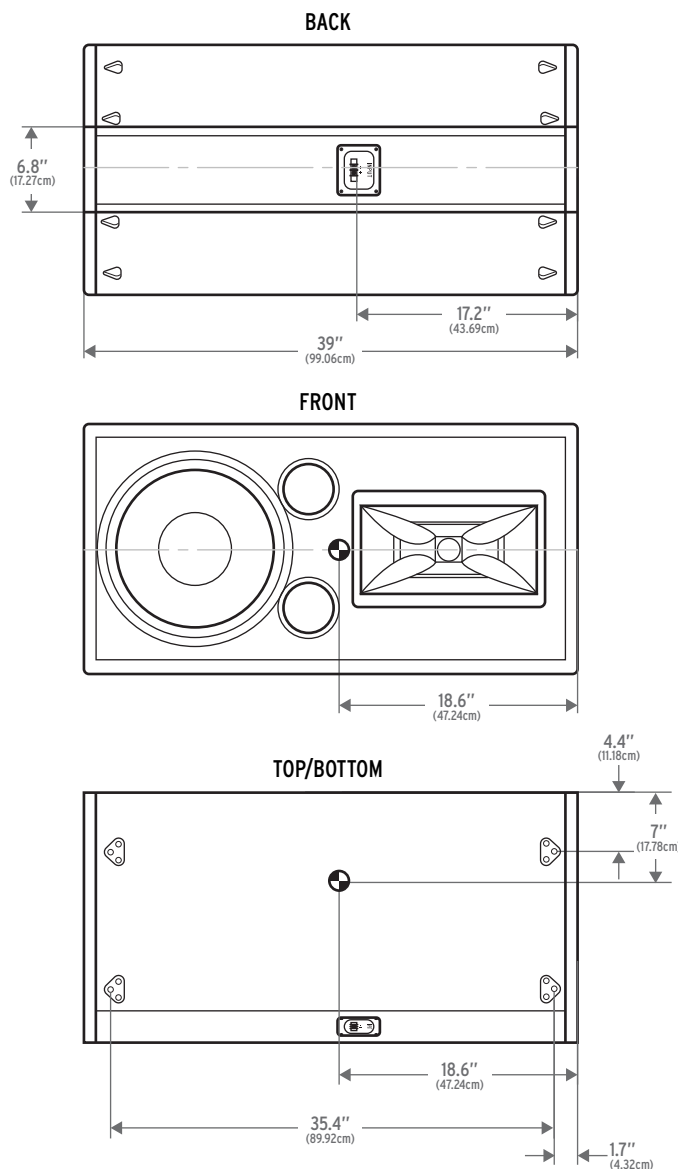
You need to make the best impression, from the initial job quote through the completed installation. We can help choose the best Klipsch speakers for the application and help design a system that unleashes your venue's full potential.

Send us your plans or questions to us at:

PROSYSTEMDESIGN@KLIPSCH.COM

NOT A SUSPENSION POINT! 8 PLCS on each side and 8 PLCS on each top and bottom panels

3/8"-16 threaded hole suspension point 4 PLCS on each side panel and 4 PLCS on top and bottom panels



CENTER OF GRAVITY

KPT-902-M

ECONMICAL 2-WAY MONO-AMP BEHIND THE SCREEN CINEMA SYSTEM



Klipsch®

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

ORDERING INFORMATION

KI-398-RGL

PART NUMBER	MODEL NAME	FINISH	PACKED QUANTITY	DESCRIPTION	UPC
1015031	KI-398-B-RGL	Black	1	Standard 8 ohm speaker	743878027792

KI-398 SIDE-PLATE MOUNTING KIT

PART NUMBER	MODEL NAME	FINISH	PACKED QUANTITY	DESCRIPTION	UPC
1061616	KI-398-RGL PLT Mounting Kit	Black	1	2 Side-Plates plus hardware	NA

KI-398-RGL CARTON DIMENSIONS

HEIGHT	41.5" (105.4cm)
WIDTH	21.0" (53.3cm)
DEPTH	17.0" (43.2cm)

KI-398 SIDE-PLATE MOUNTING KIT CARTON DIMENSIONS

HEIGHT	1" (2.5cm)
WIDTH	18.5" (33.0cm)
DEPTH	12.5" (31.8cm)